

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions of claims in the application.

1. (Canceled)

2. (Previously presented): A metal mold, comprising:

a cavity having a predetermined internal shape;

a molding material injection path communicated with the cavity via a gate for supplying a metered fluid molding material to the cavity; and

a valve pin disposed within the molding material injection path so as to be inserted into and pulled out from the gate,

wherein the cavity includes a cylindrical mold cavity and a columnar core to be coaxially inserted into and pulled out from the mold cavity, and the gate for injecting molding material is formed in alignment with the center axis of the mold cavity,

wherein the core has a cone-shaped front end portion, and when the core is inserted into the mold cavity, the front end portion of the core is inserted into the gate, and a gap of an identical width is formed all around the periphery between the core and the gate,

wherein, when the valve pin is parted from the gate, the molding material flows uniformly into the cavity all around the periphery thereof from the gap,

wherein the valve pin is formed with circular cone recesses on the end face at the cavity side, and a communicating hole communicating the circular cone recess and the molding material injection path is formed,

wherein, when the valve pin fit with the gate to perform gate-cut, the cone-shaped front end portion of the core fits with the circular cone recess of the valve pin, and surplus molding material caught between the circular cone recess and the front end portion can escape to the molding material injection path through the communicating hole.

3. (Previously presented): The metal mold according to claim 2, wherein the mold cavity is for forming the outer surface of a cylinder and the core is for forming the cylinder inner surface.

4. (Canceled)

5. (Previously presented): A formed body molding method, comprising the steps of:

(a) injecting a metered molding material from the molding material supply side into a cavity via a gate to fill the cavity therewith,

(b) after filling the cavity, applying and maintaining a predetermined pressure to the molding material within the cavity,

(c) after completing the pressure applying and maintaining step, cutting off the gate,

(d) cooling the molding material within the cavity to solidify into a molding, and then

(e) taking out the molding,

wherein the cavity includes a cylindrical mold cavity and a columnar core to be coaxially inserted into and pulled out from the mold cavity, and the gate for injecting molding material is formed in alignment with the center axis of the mold cavity, the molding material is injected from

the front end side of the core to fill the mold cavity therewith, the core has a cone-shaped front end portion,

in the step (a), the front end portion of the core is inserted into the gate, a gap of uniform width is formed all around the periphery between the gate and the core, and the molding material flows uniformly into all around the periphery of the cavity from the gap,

in the step (c), when the valve pin disposed so as to be inserted into and pulled out from the gate at the supply side of the molding material is inserted into the gate to perform gate-cut, and when the cone-shaped front end portion of the core is inserted into a circular cone recess formed on the end face of the cavity of the valve pin, inescapable surplus molding material caught between the circular cone recess and the front end portion can escape to the molding material supply side through the communicating hole.

6. (Previously presented): The formed body molding method according to claim 5, wherein the mold cavity is for forming the outer surface of a cylinder and the core is for forming the cylinder inner surface.

7. (Canceled)

8. (Canceled)